

WHAT IS CLAIMED IS:

1. A metal back layer forming device, comprising:

5 a film withdrawing mechanism which withdraws, starting at one end, a transfer film from a wound body of the transfer film formed by applying at least a metal film onto a base film;

a film carrying mechanism which carries the transfer film withdrawn, starting at one end, by the film withdrawing mechanism
10 to the downstream side;

a transfer mechanism which transfers the metal film via an adhesive layer by heating while pressing the transfer film carried by the film carrying mechanism against a phosphor surface disposed on the face plate; and

15 a film winding mechanism which winds while peeling the base film from the transfer film from which the metal film is transferred by the transfer mechanism.

2. The metal back layer forming device according to claim 1, further comprising an adhesive agent coating mechanism which
20 coats an adhesive agent onto the metal film of the transfer film and an adhesive agent drying mechanism which dries the adhesive agent coated by the adhesive agent coating mechanism installed at a previous stage of the transfer mechanism.

3. The metal back layer forming device according to claim
25 1 or 2, further comprising a wrinkle-removing mechanism which removes wrinkles which might be produced on the transfer film on the downstream side in the vicinity of the film withdrawing mechanism and in the vicinity of the disposed position of the

transfer mechanism.

4. The metal back layer forming device according to claim 2 or 3, further comprising a static elimination mechanism which removes static electricity from the electrostatically charged transfer film on the downstream side in the vicinity of the film withdrawing mechanism, on the side of the surface of the base film opposite to the adhesive agent coated surface of the transfer film on the downstream side of the adhesive agent coating mechanism, and in the vicinity of the disposed position of the transfer mechanism.

5. The metal back layer forming device according to any one of claims 1 through 4, wherein a carrying speed of the transfer film by the film carrying mechanism can be adjusted in a range of 0.1 m/min to 10 m/min, and an adhesive agent coating time can be set in a unit of one second.

6. The metal back layer forming device according to any one of claims 1 through 5, wherein the transfer mechanism is set to have a pressing force against the transfer film in a range of 300 to 1500 kg/cm² and a heating temperature in a range of 150 to 240°C.

7. The metal back layer forming device according to any one of claims 1 through 6, further comprising:

a slide table which is disposed at a position opposite to the transfer mechanism with respect to the transfer film being carried by the film carrying mechanism and slidable in parallel to a carrying direction of the transfer film while placing thereon the face plate on which the phosphor surface is formed,

wherein the slide table has a moving speed in a range of

0.5 m/min to 10 m/min.

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